

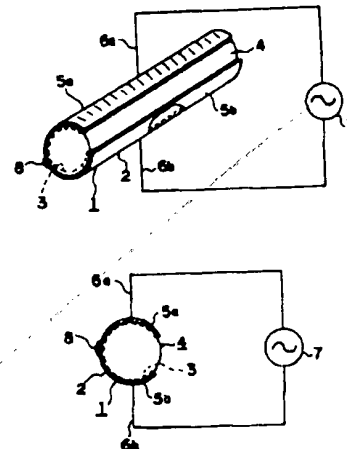
126 E 1406 *STV V 742.603* *not 7-16-7*

(54) DISCHARGE LAMP AND LARGE DISPLAY DEVICE USING IT AND MANUFACTURE OF THE DISCHARGE LAMP

- (11) 5-82101 (A) (43) 2.4.1993 (19) JP
 (21) Appl. No. 4-23653 (22) 10.2.1992 (33) JP (31) 91p.129307 (32) 31.5.1991
 (71) MITSUBISHI ELECTRIC CORP (72) SADAYUKI MATSUMOTO(8)
 (51) Int. Cl⁵. H01J65/00, G09F9/313, G09G3/28, H01J9/24, H01J61/067, H01J61/33, H01J61/72

PURPOSE: To provide a discharge lamp which has large light output and stable discharge.

CONSTITUTION: A pair of belt like electrodes 5a and 5b are arranged opposite to each other on the outside surface of a cylindrical glass bulb 2 inside which xenon is sealed up. A light output part 4 is formed between the two electrodes, and an opposite electrode interval is formed to be narrower than the light output part, so that the electrodes approach to each other. Since the electrode interval is narrow, discharge can be stabilized, and since an electrode area can be secured widely, the light output can be increased.

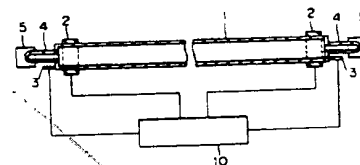


(54) ULTRAVIOLET RADIATION DISCHARGE LAMP

- (11) 5-82102 (A) (43) 2.4.1993 (19) JP
 (21) Appl. No. 3-246102 (22) 25.9.1991
 (71) TOSHIBA LIGHTING & TECHNOL CORP (72) KENJI ARAKI(2)
 (51) Int. Cl⁵. H01J65/04

PURPOSE: To provide an ultraviolet radiation discharge lamp having an excellent luminous efficiency.

CONSTITUTION: In an ultraviolet radiation discharge lamp whose ultraviolet radiation emissive material is sealed up in a light transmittable bulb 1 and which is provided with means to emit light by supplying electromagnetic energy to this ultraviolet radiation emissive material, the discharge lamp is characterized in that the means to supply the electromagnetic energy are arranged outside of the bulb and are external electrodes 2 to which a high frequency electric power is supplied. Since high frequency electromagnetic energy to cause discharge is set to be supplied by means of the external electrodes arranged outside of the bulb, an electrode loss made by providing internal electrodes in an electrode possessing type discharge lamp is reduced, so that an ultraviolet radiation efficiency can be increased.



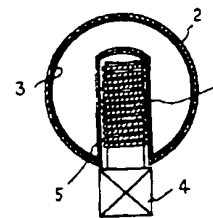
10: high frequency oscillator

(54) ELECTRODELESS DISCHARGE LAMP

- (11) 5-82103 (A) (43) 2.4.1993 (19) JP
 (21) Appl. No. 3-243468 (22) 24.9.1991
 (71) TOSHIBA LIGHTING & TECHNOL CORP (72) HIDENORI ITO
 (51) Int. Cl⁵. H01J65/04, C09K11/08

PURPOSE: To restrain the occurrence of blackening or discoloration in a phosphor layer, prevent an decrease in a light flux, and lengthen the service life.

CONSTITUTION: In an electrode non possessing discharge lamp provided with an emission tube body 2 connected magnetically to a high frequency electromagnetic field generating coil 1 to generate a high frequency electromagnetic field, a phosphor layer 3 coated/formed on the inner wall surface of the emission tube body 2 and emission metal and rare gas sealed up in the emission tube body 2 where the phosphor layer 3 is arranged on the inner wall surface, the discharge lamp is characterized in that phosphor particles with which an electric charge of $+1.5\mu\text{C}$ exceeding 0 per 1g phosphor is electrified in the case of coming into contact with reduced iron powder having a particle diameter $44\mu\text{m}$ - $74\mu\text{m}$ are contained in the phosphor layer 3, and the desired electric charge is electrified by coating a MO film (M is at least one kind selected from Mg, Ca, Sr, Ba and Zn) on the surface of the phosphor particles in 0.01-3.0weight%.



4: high frequency oscillator. 5: recess part